

Abstract

A power system for dual-motor hybrid vehicle is a combined driving unit fed with fuel and electric power, comprising: an internal combustion engine, a motor, a clutch, a transmission, a power battery, a braking system and an entire vehicle controller, wherein the system further comprises: a main motor, an auxiliary motor, and a mechanical stepped transmission, a rotor shaft of the main motor being connected with the output shaft of the transmission, a rotor shaft of the auxiliary motor being connected with the crankshaft of the internal combustion engine; the main motor and the auxiliary motor being electrically connected with the power battery. With the control of the entire vehicle controller, the vehicle can be driven automatically by the hybrid power system in the follow modes: pure motor driving mode, series driving mode, parallel driving mode, hybrid driving mode, idling stop mode of the internal combustion engine, braking energy recovery mode, independently driving mode of the internal combustion engine, and motor auxiliarily driving mode during shifting. The present invention provides a new power system for hybrid vehicle, with simple structure, lower cost, less energy consumption and less exhaust gas emissions.